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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,785	02/25/2002	Atsushi Miyake	1018.1132101	1199

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EXAMINER	
ALLEN, DENISE S	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,785	MIYAKE ET AL.	
	Examiner	Art Unit	
	Denise S Allen	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

In light of the Applicant's amendment to the specification on October 16, 2003 (paper #5), the objection to the specification in the Office Action on July 21, 2003 (paper #4) has been withdrawn.

In light of the Applicant's amendment to claims 14 and 18 on October 16, 2003 (paper #5), the objection to claims 14, 15, 18, and 19 in the Office Action on July 21, 2003 (paper #4) has been withdrawn.

Receipt is acknowledged of a translation in accordance with 37 CFR 1.55 of the foreign priority papers submitted under 35 U.S.C. 119(a)-(d), and the translation has been placed of record in the file. In light of the submission of the translation of the foreign priority papers, Rabinski (US 6,480,651) is not available as prior art.

The rejection of claims 1 – 16 and 21 – 33 under 35 U.S.C. 102(e) as being anticipated by Rabinski in the Office Action on July 21, 2003 (paper #4) has been withdrawn.

The rejection of claims 17 – 20 under 35 U.S.C. 103(a) as being unpatentable over Rabinski in the Office Action on July 21, 2003 (paper #4) has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 4, 6 – 10, 12 – 14, 16 – 18, 20 – 30, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palen et al (US 6,205,266).

Regarding claims 1, 6, 7, 12, 13, 17, 21 – 23, 25, 28, and 33, Palen et al teaches a means for moving an optical element (Figure 4 reference 80) positioned on an optical axis (reference 52) of light within a predetermined scanning range, the means for moving comprising of: a means for moving (reference 74) the optical element at a first speed (column 4 lines 1 – 3) in a first direction (i.e. the x-direction column 3 lines 53 – 55) intersecting the optical axis; and a means for moving (reference 76) the optical element at a second speed (column 4 lines 1 – 3) in a second direction (i.e. the y-direction column 3 lines 53 – 55) intersecting the first direction. Palen et al does not teach that the second speed is different from the first speed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use different speeds for moving the optical element in the first and second direction in the means for moving an optical element of Palen et al in order to perform a grid search pattern or a raster scan pattern in order to move the optical element through the entire range of possible positions.

Regarding claims 2 – 4 and 32, Palen et al teaches the optical element is reciprocally moved within the predetermined scanning range in the first direction and the second direction (Abstract), and wherein the second speed is in a range of 100 Hz to 1 kHz (column 4 lines 1 – 3), and the first speed is in a range of 0.1 to 10 Hz (column 4 lines 1 – 3).

Regarding claims 7, 13, 17, 22, 23, 25, and 28, Palen et al teaches a means for measuring the intensity of the light (reference 60) while moving the optical element.

Regarding claim 8, Palen et al teaches the optical element includes a first optical element (reference 58, 80, or 84) under testing, and a second optical element (reference 54 or 82) for irradiating the first optical element with the light (reference 52 or 102), wherein either one of the first and second optical elements is moved (Figure 3 shows the second optical element moving, Figure 4 shows the first optical element moving, and Figure 5 shows both optical elements moving).

Regarding claim 9, Palen et al teaches the optical element includes a first optical element (reference 80) under testing, and a second optical element (reference 60) for receiving light (dotted line) irradiated from the first optical element, wherein either one of the first and second optical elements is moved (Figure 4 shows the first optical element moving).

Regarding claims 10, 14, 18, 24, and 30, Palen et al teaches a means for storing a position of the optical element at which a measured light intensity reaches a maximum, the measured light intensity, and a moving distance of the optical fiber (reference 66).

Regarding claims 13, 22, 23, 25, and 28, Palen et al teaches the optical element (reference 84) is positioned to substantially oppose the work (reference 82) and a means for aligning (references 86, 88, and 90) the work based on the measured intensity of the light (column 4 lines 22 – 26).

Regarding claims 16, 20, and 29, Palen et al teaches the work has a tube, a collimation lens and a capillary disposed in the tube, and an optical fiber disposed in the capillary (column 3 lines 46 – 47, and column 4 lines 8 – 11 and 14 – 16).

Regarding claim 17, Palen et al teaches the optical element (reference 84) is positioned to substantially oppose the work (reference 82), a means for aligning (references 86, 88, and 90) the

work based on the measured intensity of the light (column 4 lines 22 – 26), and the work is moved instead of the optical element (by references 86, 88, and 90).

Regarding claim 26, Palen et al teaches the optical element is a mirror (column 4 lines 58 – 60).

Regarding claim 27, Palen et al teaches the optical element is a lens (reference 58, 80, or 84).

Claims 5, 11, 15, 19, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palen et al in view of Kiryuscheva et al (US 5,859,947).

Regarding claims 5 and 11, Palen et al teaches a means for moving an optical element as described above. Palen et al does not teach the means for moving the optical element in a first direction rotates the optical element about a first axis orthogonal to the optical axis and the means for moving the optical element in a second direction rotates the optical element about a second axis orthogonal to the optical axis.

Kiryuscheva et al teaches a means for moving (Figures 4 and 5 reference 110) an optical element (reference 102) that rotates the optical element about a first axis (reference C) that is orthogonal to the optical axis (out of the page at reference F) and about a second axis (reference E) that is orthogonal to the optical axis. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the rotational movement of Kiryuscheva et al in the means for moving an optical element of Palen et al in order to align an optical axis of the optical element with the optical axis and eliminate any undesirable beam steering.

Regarding claims 15, 19, and 31, Palen et al teaches a means for aligning a work as described above. Palen et al does not teach aligning includes the step of fixing the optical element at a position at which the measured light intensity reaches a maximum, and moving the work along the optical axis.

Kiryuscheva et al teaches a method of aligning a work wherein aligning includes the step of fixing the optical element at a position at which the measured light intensity reaches a maximum (Figure 21B), and moving the work along the optical axis (Figure 21C). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the alignment method of Kiryuscheva et al with the means for aligning a work of Palen et al in order to align the work in fewer steps.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise S Allen whose telephone number is (703) 305-7407. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Please note that due to the organization where this application or proceeding is assigned relocating to the new USPTO offices in Alexandria, VA, the following new telephone numbers

will be effective on January 21, 2004: Denise S. Allen (571) 272-2305 and Drew Dunn (571) 272-2312.

Denise S Allen
Examiner
Art Unit 2872

dsa

Audrey Chang
Primary Examiner
Technology Center 2800